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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/082,186	02/26/2002	Akira Kimura	SON-2356	4346

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EXAMINER
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SCHUBERT, KEVIN R

ART UNIT	PAPER NUMBER
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2137

DATE MAILED: 05/08/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/082,186	KIMURA, AKIRA	
	<b>Examiner</b>	<b>Art Unit</b>	
	Kevin Schubert	2137	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 31 March 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-24 and 35-46 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-24, 35-46 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |   |   |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                        | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)    | Paper No(s)/Mail Date. _____  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____   | 6) <input type="checkbox"/> Other: _____                                    |

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### DETAILED ACTION

Claims 1-24 and 35-46 have been considered.

#### *Continued Examination Under 37 CFR 1.114*

5           A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 3/31/06 has been entered.

10

#### *Title*

Applicant has made no response to Examiner's objection to the title in the previous action. Examiner reiterates and objects to the title for at least two reasons. First, the instant title is "Authentication System and Method, Identification Information Inputting Method and Apparatus **ands** Portable Terminal". The use of "ands" is not grammatically sound. Further, Examiner suggests use of a new title which is pithy and more reflective. Appropriate correction is recommended, but not required.

15

#### *Claim Objections*

Claim 1 is objected to because of the following informalities: the phrase "an encryption key information" is not grammatically sound. Appropriate correction is required.

20

#### *Claim Rejections - 35 USC § 112*

The following is a quotation of the second paragraph of 35 U.S.C. 112:

25

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

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Claims 1-24 and 35-46 rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claims 1, 13, 35, and 46 indicate that first identification information is "pre-stored". However, it is unclear as to what constitutes the first identification information being "pre-stored". For example, the first identification information may be deemed "pre-stored" as it is stored before a discrimination of the portable card terminal takes place. Appropriate correction to clarify "pre-stored" is required.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-9, 13-21, and 35-42 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nemirofsky, U.S. Patent No. 5,880,769, in view of Schneier (Schneier, Bruce. Applied Cryptography. John Wiley & Sons. 1996. pages 170-178).

As per claims 1, 13, and 35, the applicant describes a portable terminal with the following limitations which are met by Nemirofsky in view of Schneier:

a) first identification information storage means having the first identification information for discriminating said portable terminal pre-stored therein (Nemirofsky: Col 4, line 50 to Col 5, line 15; Schneier: pages 176-177);

b) operating means for inputting the second identification information associated with said first identification information (Nemirofsky: Col 4, line 50 to Col 5, line 15);

c) communication means for communication with said authentication device (Nemirofsky: Col 4, line 50 to Col 5, line 15);

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d) encrypting means for encrypting the second identification information input by said operating means based on preset encryption key generating information sent over said communication means from said authentication device (Nemirofsky: Col 4, line 50 to Col 5, line 15; Schneier: pages 176-177);

5 Nemirofsky does not disclose encrypting based on a preset encryption key received from an authentication device. Schneier discloses that a key may be transferred to an entity in order to establish secure communication. It would have been obvious to one of ordinary skill in the art at the time the invention was filed to combine the ideas of Schneier with those of Nemirofsky and transfer an encryption key for the purpose of establishing secure communication.

10 As per claims 2-7,9,14-19,21,36-40, and 42, the applicant describes the portable terminal of claim 1 (etc), which is met by Nemirofsky in view of Schneier, with the following limitations which are met by Nemirofsky:

Wherein the portable terminal is issued to said service user by a service provider to offer preset services for said service user in a credit sale system, an inter-account instant payment system and E-  
15 commerce carried out over a preset network and is in the form of a card (Nemirofsky: Col 4, line 50 to Col 5, line 15).

As per claims 8,20, and 41, the applicant describes the portable terminal of claim 4 (etc), which is met by Nemirofsky in view of Schneier, with the following limitation:

20 Wherein said second identification information stored in said transient storage means is erased every preset time interval;

Nemirofsky in view of Schneier disclose second identification information stored in transient storage. Nemirofsky in view of Schneier does not disclose erasing the information every preset time interval. Examiner took official notice in the previous action that the idea of erasing information every  
25 preset time interval is well-known in the art. Examiner takes Applicant's lack of rebuttal as an implicit admission that the concept is well-known in the art (See MPEP 2144.03 [R-1]). It would have been

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obvious to one of ordinary skill in the art at the time the invention was filed to erase information every preset time interval in order to free memory space.

Claims 10-12,22-24, and 43-46 are rejected under 35 U.S.C. 103(a) as being unpatentable over  
5 Nemirofsky in view of Schneier in further view of Lillibridge, U.S. Patent No. 6,195,698.

As per claims 10-12,22-24, and 43-46, the applicant describes describes an authentication system with the following limitations which are met by Nemirofsky in view of Schneier in further view of Lillibridge:

- 10 a) first identification information storage means having the first identification information pre-stored therein for discriminating said portable terminal (Lillibridge: Col 3, line 12 to 28, Fig 4; Nemirofsky: Col 4, line 50 to Col 5, line 15);
- b) operating means including display means for irregularly displaying letters included in a group of letters and selection means for selecting the letters making up the second identification information from  
15 among the letters irregularly displayed on said display means, said operating means inputting the second identification information associated with said first identification information (Lillibridge: Col 3, line 12 to 28, Fig 4; Nemirofsky: Col 4, line 50 to Col 5, line 15);
- c) first communication means for communication with said authentication device (Nemirofsky: Col 4, line 50 to Col 5, line 15);
- 20 d) second identification information storage means having the first identification information and the second identification information stored therein (Lillibridge: Col 3, line 12 to 28, Fig 4; Nemirofsky: Col 4, line 50 to Col 5, line 15);
- e) encryption key generating information generating means for generating said encryption key generating information (Schneier: page 173);
- 25 f) second communication means for communication with said portable terminal (Nemirofsky: Col 4, line 50 to Col 5, line 15);

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g) comparator authentication means for comparing the second identification information encrypted by said encryption means to said encryption key generating information by way of authentication (Nemirofsky: Col 4, line 50 to Col 5, line 15);

h) said portable terminal encrypts the second identification information input from said operating means, based on said encryption key generating information received from said authentication device through said first communication means, and the so encrypted second identification information is transmitted through said first communication means to said authentication device, and wherein, in said authentication device, the encrypted second identification information received through said second communication means and the second identification information stored by said second identification storage means are compared to each other based on said encryption key generating information by way of performing the authentication (Nemirofsky: Col 4, line 50 to Col 5, line 15; Schneier: pages 176-177).

Nemirofsky does not disclose all the limitations of parts e and h. More specifically, Nemirofsky does not disclose encrypting based on a preset encryption key received from an authentication device. Schneier discloses that a key may be transferred to an entity in order to establish secure communication. It would have been obvious to one of ordinary skill in the art at the time the invention was filed to combine the ideas of Schneier with those of Nemirofsky and transfer an encryption key for the purpose of establishing secure communication.

Nemirofsky in view of Schneier does not disclose irregularly displaying letters in a group of letters and selection means for selecting the letters making up the second identification information from the letters irregularly displayed. Lillibridge discloses this idea. It would have been obvious to one of ordinary skill in the art at the time the invention was filed to combine the ideas of Lillibridge with those of Nemirofsky in view of Schneier because doing so makes the system more secure by making the system less prone to an automated attack.

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Applicant's arguments, see Remarks, filed 3/31/06, with respect to the 112, first paragraph, rejection of claims 1-12 have been fully considered and are persuasive. The rejection has been withdrawn.

5 Applicant's arguments with respect to the 112, second paragraph, rejection of claim 9 have been fully considered and are persuasive. The rejection has been withdrawn.

Applicant's arguments with respect to the 102(e) rejection of claims 35-36 and the 103(a) rejection of claims 1-4 and 13-16 in light of Tello in view of Schneier have been fully considered but are  
10 moot as the rejection has been withdrawn.

Applicant's arguments with respect to the 103(a) rejection of claims 5 and 17 in light of Tello in view of Schneier have been fully considered but are moot as the rejection has been withdrawn.

15 Applicant's arguments with respect to the 103(a) rejection of claims 6-7,9,18-19, and 21 in light of Tello in view of Schneier in further view of Glazner have been fully considered but are moot as the rejection has been withdrawn.

Applicant's arguments with respect to the 103(a) rejection of claims 10-12,22-24, and 46 in light  
20 of Tello in view of Schneier in further view of Lillibridge have been fully considered but are moot as the rejection has been withdrawn.

Applicant's arguments with respect to the 103(a) rejection of claim 1 (etc) in light of Nemirofsky in view of Schneier have been fully considered but are not persuasive. Applicant presents the following two  
25 arguments:

- 1) Neither Nemirofsky nor Schneier disclose a portable card identifier
- 2) Neither Nemirofsky nor Schneier disclose encrypting second information



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Examiner respectfully disagrees with the above. Regarding 1), Applicant has amended claim 1 to indicate that the portable terminal has a *portable card identifier*. Examiner respectfully submits that such expansive language is met in many fashions by the combination of Nemirofsky and Schneier. For example, Nemirofsky discloses a smart card serial number (Col 7, lines 2-3). Like inputted second identification information, a smart card serial number may be used for discriminating the portable card terminal. To cite another example of a portable card identifier, Nemirofsky and Schneier also teach an encryption key (first identification information) for discriminating a device. Examiner notes that the above reflects two examples of a portable card identifier, and that the above should not be taken as comprehensive.

Regarding 2), Applicant argues each of Nemirofsky and Schneier individually as not teaching encrypting second identification information. In response to Applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

Applicant's arguments with respect to the 103(a) rejection of claim 10 (etc) in light of Nemirofsky in view of Schneier in further view of Lillibridge have been fully considered but are not persuasive. Applicant argues that the positions of the letter input units are not variable. Examiner disagrees and notes that this argument was already addressed (see office action mailed 1/31/06, page 15 line 15 to page 16 line 2).

### **Conclusion**

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kevin Schubert whose telephone number is (571) 272-4239. The examiner can normally be reached on M-F 7:30-6:00.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Emmanuel Moise can be reached on (571) 272-3865. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application  
5 Information Retrieval (PAIR) system. Status information for published applications may be obtained from  
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you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC)  
at 866-217-9197 (toll-free).

10

KS.

15

  
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SUPERVISORY PATENT EXAMINER